Practice Relating to Division

AS INDICATED BY DECISIONS OF THE BOARD OF EXAMINERS-IN-CHIEF

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The purpose of this paper is to outline briefly the principles which underlie the practice of the office in the matter of division.

Widely different views have been held with regard to this question, depending upon the individual construction placed upon Section 4886 of the statutes which is as follows:

> "Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof, not known or used by others in this country before his invention thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, or more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceedings had, obtain a patent therefor."

The question to be answered is, how much may a single patent cover? May more than one invention receive protection by a single instrument? Is it proper to join two or more inventions in a single patent, and if so, under what conditions?

Robinson in his work on patents inclines strongly to

the belief that joinder of inventions is not contemplated by the statute. He says (vol. 11, p. 48):

> "The joinder of several inventions in a single application is not altogether consistent with the principles or policy of patent law, however nearly related to each other such inventions may be. A right to the exclusive use of one invention is entirely distinct from a right to the exclusive use of any other, and the monopolies created in favor of an inventor must, therefore, always be as numerous as the inventions upon which they are based.
>
> "That several monopolies *can* be created by one granting act, and *can* be witnessed by one instrument of grant is undeniable; but the symmetry of the law and the avoidance of unnecessary confusion would require that each invention be protected by a separate patent, in which the limits of the single monopoly conferred thereby might be clearly and perpetually defined."

And then bowing to the actual realities of things he adds:

> "A contrary practice, however, has arisen, and out of consideration for its convenience and its economy to applicants, has been sanctioned by the Patent Office and the courts."

In Ex parte Bancroft and Thorne, 20 O. G., 1893, Commissioner Marble said:

> "The fair construction, I think, of this statute is that an invention or discovery for which a person may receive a patent is a single invention or discovery, not several . . . My attention has been called to the fact that patents have been issued for a process and a product; a machine, process, and product; and a machine and product, and, as I think, in many cases, improperly. The fact that the courts will sustain patents in order to protect the rights of parties, or that patents have been improperly issued, furnishes no rule of ac-

> tion for this office. . . . I am unable to appreciate the suggestions made upon the argument about public policy or the policy of the law in connection with the issuing of patents. The law has no policy other than that expressed in itself, and that policy is to give to every person, upon his complying with its terms, all the rights and privileges contemplated therein. It certainly is not the policy of the law to give to a person any more than is authorized. If there is any policy in the law it is to allow all persons whom the law recognizes as proper applicants for patents for inventions, the right to devise ways and means, mechanical or otherwise, for practicing or producing anything useful and beneficial to man. This, I think, is best done when the particular thing invented or discovered is embraced in one patent."

In Wyeth *vs.* Stone, 1 Story, 273, the court emphasized this principle calling attention to the exact wording of the statute in the following words:

> "For if different inventions might be joined in the same patent for entirely different purposes and objects, the patentee would be at liberty to join as many as he might choose, at his own mere pleasure, in one patent, which seems to be inconsistent with the language of the patent acts which speak of the thing patented, and not of the things patented, and of a patent for an invention and not of a patent for inventions; and they direct a specific sum to be paid for each patent. . . . There is no ground, founded in public policy or in private right, which calls for any expanded meaning of the very words of the statute; and to construe them literally is to construe them well."

On the other hand, there have been those who have been extremely liberal in their views, and who would cover by a single instrument as many monopolies as might be described in a specification, just as a deed may give title to many different properties. As an illustration

may be mentioned the case of Benjamin Electric Mfg. Co. *vs.* Dale Co. et al., 158 F., 617. The original application of Benjamin contained claims to a number of modifications between which division had been required. The court said:

> "The logical way would have been to include the genus and its varieties in the same patent, and half a dozen claims would have covered every possible combination which he was entitled to hold. But by the time the Patent Office got through with him, Benjamin was the holder of four separate patents granted upon divisional applications split off from the original one, the four patents containing together ninety-eight claims. It does not seem just that the patentee, who was powerless to obtain any modification of the rule for dividing applications, should be made to suffer from such misdirected energy."

The practice of the office with reference to division has at times changed with the change of Commissioners. In 1884, the Commissioner referring to the language of the statute said in Ex parte Blythe, 30 O. G., 1321:

> "I am compelled to hold that the plain provisions of the statute, as well as the weight of judicial opinion and the dictates of what seems to me common sense, requires that arts, machines, manufactures, and compositions of matter should be made the subjects of separate and independent patents except as indicated."

But a year and a half later the succeeding Commissioner stated in Ex parte Young, 33 O. G., 1390, that he had no hesitancy whatever in saying, generally, that the unqualified statement that claims for method, apparatus, etc., are prohibited by the statute from ever being joined or included in one patent was faulty, and, in his judgment, could not be sustained.

Lying between such extreme views are found the principles which define the practice of the office. While the matter of fees is not to be neglected which, during the years since the patent system was inaugurated, have

created a surplus of more than $7,000,000, nevertheless much latitude is afforded an applicant in the scope and character of the claims which shall protect him in the use of his invention. Where only a single invention is claimed the question of division naturally does not arise. For whether claimed generically or specifically the invention remains the same (Ex parte Lord, 50 O. G., 987). But where different, distinct inventions are involved, the question of proper joinder has to be considered.

Two conditions are clearly stated in Rule 41, which says:

> "Two or more independent inventions can not be claimed in one application; but where several distinct inventions are dependent upon each other and mutually cooperate to produce a single result, they may be claimed in one application."

Inventions thus fall into two groups—independent and dependent inventions, and it is the purpose of this paper to ascertain what is comprehended by each of these terms. It may be stated that the principles underlying the present practice of division are both few in number and general in character.

The independence of different species was long ago enunciated in Ex parte Eagle, 1870 C. D., 137, and has been affirmed in many later decisions.

Two devices, even though they are classified in the same office class, are independent inventions if independent in structure and operation. Ex parte Davidson, 101 O. G., 1371.

And if the claims cover inventions so independent that each requires an independent search to determine its novelty, division should be required. Ex parte Adams, 106 O. G., 541.

Independence between combination and subcombination, where the latter has acquired a distinct status in the arts, manufactures, and office classification, and is useful in other relations, is affirmed in Ex parte Moriarty 99 O. G., 2549, and Ex parte Dyer, 15 Gour., 36-11. As stated in Ex parte Herr, 41 O. G., 463, and later in Willcox and Borton, 45 O. G., 455, wherever the original invention is such that it could be the subject of a patent and the organism was not changed in its structure or

identity, it is believed that several improvements on its parts may be embraced in one patent, providing they cooperate in affecting the whole organism, improving it as a whole, and provided, also, invention and art have not subsequently so advanced as to select the improved parts as distinct subjects of invention, art and manufacture.

If there is absence of any necessary relation between a process and the apparatus by which it is carried out, the inventions are independent. Ex parte Frasch, 117 O. G., 1166.

So also independence exists between a process and a product when the process can result in other products and the product be made by other processes (Ex parte, McHale, 18 Gour., 41-26); or between a process and a product which may be made by other processes (Ex parte Schmidt, 100 O. G., 2602); or between a process and an article which is independent of any particular process (Ex parte Williams, 105 O. G., 1780); or between a process and product when the product has acquired a distinct status in the arts, manufactures, and office classification (Ex parte Christensen, 105 O. G., 1261).

Independence exists between a composition and the process of using the same. Ex parte Tschirner, 97 O. G., 187.

Division can not be required in a reissue application. Ex parte Van Nostrand, 194 O. G., 1141.

These few simple statements substantially embody the general principles upon which the practice of the office is based.

Prior to February, 1904, division was held to be a matter of form to be considered by the Commissioner on petition and, to unify the practice in a measure, Rule 41 had been formulated requiring that process and apparatus be claimed in separate applications. But the United States Supreme Court in Stinemetz *vs.* Allen, 109 O. G., 549, overruling the conclusions of all lower tribunals not only declared this rule at fault because making a hard and fast rule where discretion must be exercised, but declared that the question of division was a matter of merits appealable to the Board of Examiners-in-Chief. From February, 1904, until June, 1914, 175 appeals relating to division have been decided by the Examiners-

in-Chief in accordance with the principles above mentioned.

These decisions being unpublished have not been available to the examiners and it is a significant fact that in more than 60 per cent of all such appeals the examiners have been reversed, this being largely due to the impossibility of ascertaining, except in isolated cases, the way in which these general principles were being applied by the Examiners-in-Chief to specific cases. It may not be amiss, therefore, to give a brief synopsis of a few representative decisions from applications which have now matured into patents, covering the various classes of questions which commonly arise, and which may outline what is to be considered the practice of the office.

UNRELATED DEVICES.

Ex parte Bean, Patent 1,030,702:

In a shoe-blacking machine, three sets of claims covering (1) brushes and means to operate them; (2) the same brushes and means to apply blacking to them, and (3) the same brushes, a foot rest and means to raise and lower the rest, were held to be related in purpose and properly joined, while claims to a different set of brushes and operating means therefor to polish a different part of a shoe were held to cover an unrelated machine, though mounted on the same base. The ultimate object of the two sets of brushes was the sum of their separate objects and not a unitary result. Each machine accomplished its own work completely, without being affected in any way by the operation of the other.

Ex parte Frasch, Patent 951,721:

Requirement for division was sustained between claims to the separating portion of an oil purifying apparatus, and a pump useful in other relations and a rectifier adapted for use in any place where a rectifier is needed, each having acquired a distinct status in the arts and manufactures.

RELATED DEVICES.

Ex parte Morgan, Patent 975,563:

Two sets of claims covered respectively, means for inserting a bit, and means for removing a bit. Held, that although the devices might be used separately or together, there is no practical reason why applicant should not be permitted to exercise the option of joining the two in one application since they have not acquired a distinct status in the arts and manufactures, and, except in the case of species, the office rarely, if ever, has gone ahead of the time when inventions have acquired such distinct status. Rules of joinder are interpreted as applying to inventions as they are found in the art and not as things apart from the art.

Ex parte Smith, Patent 1,026,714:

Several sets of claims relating to beet harvesters covered cutting and pulling mechanisms alone and in combination. The combination being old in the art, division had been required between the different mechanisms. Two patents were found showing one of the inventions claimed separately, but no separate office classification had been established. It was contended that two patents indicate the independence of the inventions and the necessity of division as truly as a hundred, and office classification should follow. Held, that division should not be required since two patents may indicate the existence of an invention, but that manufacture and sale are important factors in determining its status in the arts.

Ex parte Levi, Patent 968,245:

This application contained claims for an ornamental cover for a box, to act as a frame for the goods displayed in the box, and claims for a card to hold the article displayed in the bottom of the box. Either could be used without the other, and separate patents for each invention have been secured. Held, that division should not be required, since these inventions have not acquired a distinct status, they were intended to be used

together and neither office classification nor the work of examination could be especially facilitated by division, which is after all largely a matter of discretion.

Ex parte Wagner and Malocsay, Patent 920,698:

This application related to an improvement in a machine for applying bands to cigars, designed to gum the bands, wrap the same around the cigars, and secure the overlapping ends together. One set of claims relates to the mechanism for transferring a band from a stock of bands in a holder. Other sets of claims relate to the gumming of the bands, the delivery of the article, the closing of the band, and a delivery carrier for the finished article. The examiner held that the band transferring claims should be divided out and classified with Pneumatic Separators under Printing, thus obviating the difficulty of classification and examination incident to the presence of such devices in many widely different arts. The decision of the Board is in part as follows:

> "The rule as to joinder of inventions is that independent inventions can not be claimed in one application, but that where the inventions, though distinct, are dependent upon each other and mutually contribute to a single result, they may be claimed in one application. . . . The office classification can not, of course, establish the fact of the independence of any given two or more inventions. The office classification is only evidence to show how the several subjects-matter are there classified. In short, the independence of invention is one thing and its classification another and different thing. Thus in the case of species, for example, their independence of invention is conclusive from the fact that they are species. And yet the several applications for the separate species are classified in the same art and in the same sub-class. In any event the office classification simply follows the art, accepting it as it finds it, and does not announce any opinion as to the independence of invention in any given case. . . . It can not be indubi-

tably said that the claims for the transferring device and its combination with the holder are independent of the claims for the other combinations, the devices in both sets of claims, each and all, going to make up the organized machine for banding articles. The fact that the transferring device is similar to transfer devices in other arts, or might be used therein, is not conclusive evidence of the independence of the other inventions in the banding machine of which it constitutes a part. . . . There is no evidence that the transfer device claimed in this application has a sovereignty of its own, such, for example, as a mechanical element has in the arts at large. Though, perhaps, it might facilitate the examination of applications and inventions were all transfer mechanisms classified together and subclassified according to their character, such classification is more of a wish, and, as such, father to the thought, for independence of invention than any real evidence establishing the fact that the transfer device herein and the other parts of the banding machine are, in fact, independent inventions."

COMBIANTIONS AND SUB-COMBINATIONS.

(1) Unrelated.

Ex parte Howard & McKee, Patent 840,332:

Claims for a mail carrying receptacle and a specific harness for carrying the same held improperly joined with claims for a specific receptacle, the latter having attained a distinct status in the arts and manufactures and capable of use with other forms of harness.

(2) Related.

Ex parte Johnston, Patent 837,475:

The claims were drawn to a sash cord guide comprising a pulley and casing having certain cooperating features, and to a pulley having certain of said features. Although

the office classification has a class of pulleys, yet it was held that division should not be required since office classification should not be followed in requiring division unless it appears that the reason for the existence of the separate class is the reason on which the requirement for division is based. The pulley as claimed had certain structural features which were designed with special reference to certain structural features of the casing, and therefore it was a dependent and related invention.

Ex parte Fessenden, Patent 857,985:

A claim for a key was held to be properly joined with claims to a watchman's time recorder, the key having both a locking edge and a ward to actuate the recorder, and being therefore a removable part thereof.

Ex parte Brown, Patent 922,385:

This application contained claims to a type bar having inclined type faces, and claims to a platen having a certain movement rendered necessary by the inclination of the type, and claims to the combination of the two. It was admitted that type bars and platens have each acquired a distinct status in the arts and office classification, yet joinder was permitted as related inventions because of the relation between the shape of the type and the movement of the platen.

Ex parte Clark, Patent 837,894:

A storage battery has two terminals—one permanent, the other detachable. There were claims generic to both forms, claims specific to each, and claims specific to both. Although they can be used independently or one substituted for the other, yet they may be joined because in the mind of the inventor they were intended to be used together, the construction being such as to afford permanent electrical connection between plates at one end and the detachable terminal permitting ready separation of one cell from another.

Ex parte Matthews, Patent 950,489:

Held, that claims to the combination of a coupler and specific form of uncoupler, were properly joined with specific claims to the coupler.

Ex parte Kelso & Kelso, Patent 1,024,083:

Held that division should not be required between a car coupler and a knuckle, where the knuckle was limited by features particularly designed to cooperate with this coupler.

Ex parte Holson, Reissue Patent 7341 (before Ex parte Van Nostrand, supra).

Claims to a train of gears were properly joined with combination claims for an electric motor and gearing. It was held that gear trains did not have a distinct status in the arts as machines for separate manufacture and sale. Every manufacturer of machines makes such gear trains as are necessary for his particular use. They may be joined as sub-combinations in the same application with the combination claims, or may be claimed in a separate application. The fact that they are often separately applied for does not justify the requirement for division. The test is whether each device is, in industry, under a distinct name made and put on the market and sold for general use.

GENUS AND SPECIES.

Ex parte Christensen, Patent 940,673:

This invention related to a telephone exchange system. One set of claims were commensurate in scope with patents in a certain sub-class. Other claims, by including the mechanism more specifically, were commensurate in scope with patents in another sub-class. Held that the claims bore the relation of genus and species. The fact that they correspond to an arbitrary line of classification should not determine the question of joinder It does not appear that the inventions set up in the two sets of claims have been made the subject of separate manufacture and sale.

COMBINATION WITH SPECIFIC ELEMENTS.

Ex parte Renstrom, Patent 897,491:

Certain claims covered a gas generator broadly, and a gasometer specifically, while others included the gas generator specifically and the gasometer broadly. Held that division should not be required; both sets of claims being drawn to the same invention.

Ex parte Tyler, Patent 900,239:

Where each claim is drawn to a separate modification but all are generic to one certain modification, held division should not be required.

MODIFICATIONS.

Ex parte Sprctte, Patent 826,379:

Division was required between claims to a finger board having transparent portions, and claims to a finger board having sight openings therein, these being distinct modifications.

COMPOSITIONS.

Ex parte Ernst, Patent 1,019,443:

One claim was drawn to a composition consisting of two ingredients in definite proportions, and another to the two ingredients in combination with a restrainer. Held, that since the restrainer was not an essential element of the combination, and could be used or not, at will, division should not be required.

COMPOSITIONS AND METHOD OF USING.

Ex parte Betzer, Patent 968,528:

The claims covered a method of generating oxygen from a compound, and a compound for generating oxygen by the method. Held, that the composition has no other function, and the method could not be carried out by the use of any other composition, and since the

field of search is the same, and no additional burden is placed upon the office, they may properly be joined.

Ex parte Knetsch, Patent 794,512:

Division was required between a catalytic agent and a process of manufacturing sulphuric anhydride which used this agent, because catalytic agents have hitherto been employed in similar processes, and because this agent does not differ in its effect from other agents, and because this agent may be used wherever a catalytic agent is needed, and because the field of search is different for the agent and the process.

APPARATUS AND PRODUCT.

Ex parte Hoefer and Strohhaecker, Patent 966,746:

Four groups of claims covered (1) a body of meat wrapped with cord which was looped together in stitches, (2) the specific stitch; (3) the machine for sewing the wrapping and (4) mechanism for handling the meat and advancing the package during the sewing. It was held that the stitch and the wrapping of which it was an element might be joined, but the machine by which the stitching was done was an independent invention and division should be required.

It was also held that the machine for handling the meat and feeding the package as the wrapping was being sewed, had not acquired a distinct status in the arts and was so related in its ultimate purpose to the sewing mechanism that these two inventions might be joined in one application.

PROCESS AND APPARATUS.

Ex parte Eggleston, Patent 1,018,040:

Division was required between a process of separating hydrogen sulphide from oil, and an apparatus for treating oil, because there was so little in common to the two inventions and because of absence of necessary relationship between them.

Ex parte Monnot, Patent 910,405:

In this case division was not required between a process and the apparatus by which it is carried out, because their relation was so close that their independence was not clear, and even though the process might possibly be carried out by other apparatus, the field of search was the same.

Ex parte Peirce, Patent 914,303:

Held that division should not be required between the process of cutting marble with a wheel of carborundum, and a machine for cutting marble having a carborundum wheel, since there was only one novel idea involved.

PROCESS AND PRODUCT.

Ex parte Beckwith, Patent 1,023,357:

Division was held to be proper between claims to the process of forming a filament, placing it on a frame and mounting the frame in a lamp bulb, and claims to an incandescent lamp having a filament in zigzag form, because the article was not limited in terms to a structure necessarily made by the process, and also because they have been recognized by inventors as distinct inventions to such an extent as to justify the office in forming different sub-classes for them.

Ex parte Hooper and Robertson, Patent 867,658:

Division was held to be proper between claims for a process of wire drawing and an electrical conductor made by the process, because the independence of particular electric conductors and the process of wire drawing by which they are formed is so well established and so well recognized that they are separately classified in this office, and are examinable in different divisions.

Ex parte Haefley, Patent 858,385:

The inventions here were insulating tubes and the method of making them.

The process claims were paralleled by the product claims in the sense that this particular article must neces-

sarily result from the performance of the process as stated in the process claims. Whether the product could be practically produced in any other way than by the execution of the specified process seemed to the Examiners-in-Chief extremely doubtful. A search for either of the alleged inventions would doubtless determine the patentable novelty of the other. Therefore, there is such close relationship between them that division should not be required.

Ex parte Monnot, Patent 894,162:

Compound metal bodies and process of producing them. The process disclosed must result in the product, but the product is not necessarily produced by this process only. Held, that there is no knowing what the future may develop, but since at the time there was no other process known for making the product, division should not be required. The board further said:

> "Rule 41 specifically provides for covering distinct inventions in one case where they are dependent on each other and mutually contribute to a single result. Here the process is ancillary to the article—the latter is the single result of the inventions stated in both sets of claims. There is nothing contrary to Rule 41 in the joinder of the process and product claims.
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> "It may be that separate patents covering respectively, the process and product would both be valid if granted. At the same time it is perfectly clear that a single patent covering both process and product would be valid. It is generally to the advantage of the public that two inventions, one of which is dependent on the other, be covered in a single application, as otherwise they may get into hostile hands and the public be deprived of the use of the dependent invention during the life of the dominant patent. Further, the poverty of the inventor may, in case of a requirement of division, cause a loss to the public of the invention eliminated from the application. Further, aside from the question of validity of the

patents, if granted, the joinder in a single case of two or more inventions means a saving of one or more fees to the applicant.

"In our opinion applicant should be permitted to elect the protection to be afforded him in the absence of controlling reasons to the contrary. Where no question of validity arises, as in the present case, the only possible reasons assignable against joinder in one application are, first, the exigencies of office classification, and, second, the fact that applicant obtains for one fee, that for which he should pay two fees. The second of these reasons is, in a case like the present, so unimportant as compared to the other considerations as to be negligible, especially as it would appear that a single search would cover both inventions, and there would, therefore, seem to be no reason for requiring two fees of applicant.

"As to the first reason, the question of office, classification, while always to be considered, is by no means controlling in all cases. Where the inventions have been made, by workers in the art, separate subjects of invention to such an extent that separate sub-classes have been created for the inventions, and that, therefore, they would be separately classified if presented in separate applications, division would, in general, be a proper requirement. In the present case, however, it does not appear that the process and article are separately classified, but even if such were the case, the relations between the process and the article are so close that we should hesitate to affirm a requirement for division."

SUMMARY.

It is therefore apparent, as clearly set forth in Ex parte Lord (supra), that three conditions may exist: First, there may be claims which must be joined, such as claims to genus and species; second, claims which may or may not be joined, at the option of the applicant, viz., dependent and related inventions; and, third, claims

which can not be joined, such as claims to different species and claims for entirely distinct and unrelated inventions.

The test as to what constitutes independence of invention appears to be inherent in the ideas of the inventors themselves—whether the inventions were looked upon by those working along those lines as occupying different fields. Office classification is no test. Office classification, it is to be observed, arises from two considerations, viz., convenience in the work of searching and the existence of distinct fields of inventive effort. The latter only is a factor in the solution of the question. Sub-combinations of a machine involving its various mechanical movements may be separately patented at the option of the inventor, but he can not be compelled to divide. The fact that such sub-classes exist for the reception of sub-combinations which inventors may see fit to divide out and cover by separate patents does not establish the fact that the idea covered by the mechanical movement is not a part of his larger invention and closely related thereto. It frequently happens that the larger invention is found not to be new with an applicant, and the claims are further and further limited until only a small fraction of the original invention is found to be patentable, and this after traveling from one division to another at last finds a resting place in the machine element class. This, however, under the consistent practice followed by the Examiners-in-Chief, would not constitute a valid ground for thereafter requiring every applicant to divide out claims to similar sub-combinations. As set forth in the decisions cited, a few patents do not establish the independence of an invention. They may be the first faint movements toward a final declaration of independence, but they may, on the other hand, be simply the remains of a larger invention, which has run the gauntlet of the prior art, or the product of what has been before referred to as the misdirected energy of the Patent Office.

The truest and surest test of independence of invention is the fact of separate manufacture and sale, and a distinct name in the trade. Failing in the possession of such a sure criterion, the examiner must analyze the case

to discern, if possible, whether or not the ideas underlying the different inventions are distinct or are related as component elements in the accomplishment of a definite, practical, and unitary purpose. In many instances, the lines which mark the boundaries of independent inventions are clear-cut, and occasion no doubt or question. In marginal cases, the examiner can do no better than remember that discretion in the exercise of a public trust with which Congress invests the Commissioner, and those who represent him, and be guided in his actions by the general rule, that related inventions may be joined unless the mind of that great body by whose genius the useful arts have been developed has seen them as distinct subjects for inventive consideration.

December 17, 1914.